2. WORK PERFORMED

This section provides the official name, the most common alias, and the ID number for each well. Pertinent information regarding each well is also included (e.g., the date and type of maintenance that was done and the observations that were recorded).

2.1 ANP-08

WELL ID: 76

1. Project Name: Site-wide Maintenance for FY 2003

2. Well Location: Test Area North (TAN)

3. Date Maintenance Performed: Started: 1/28/03 Completed: 2/3/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Well maintenance consisted of pulling the pipe, pump, and electric cable from the well. The total depth of the borehole is 309.2 ft below land surface (bls). The well consisted of 260 ft of 4-in., galvanized pipe and the pump assembly. The electricity to the well house was disconnected, and the electrical assembly was dismantled. A boom truck was used to detach the building's removable roof and place it to the side. After removing a total of thirteen 20-ft rods, a 6-in. blind flange was installed at the wellhead, the roof was restored to its original position, and the pipes were left on pipe racks, as the scope outlined.

6. Observations Recorded: The well house lock and concrete pad are in good condition. The electricity was disconnected from the building.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: G. Jensen, J. Hansen, and T. Brower

WELL ID 76

Well Modification Log

WELL NAME ANP-08 START DATE 1-28-03 END DATE 2-03-03

PROJECT NAME FY 03 TAN WELL MAINTENANCE INSTALLATION TEAM Dynatec

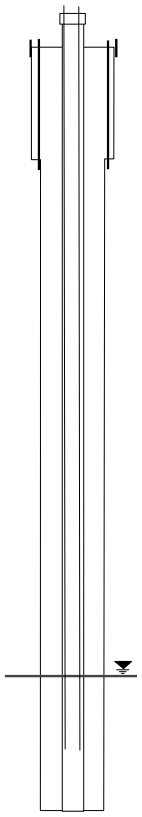
Reason for modification: Removed pump and pipe from borehole for future modifications. Left as an open Borehole.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Pump Removed
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	NA	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Removed
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Removed
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Pump was removed and not reinstalled. Pump and materials left on site.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* B. Reynolds 2-3-03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-1. Well modification log for ANP-08.

2.2 TAN-21

WELL ID: 793

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: TAN

3. Date Maintenance Performed: Started: 1/27/03 Completed: 2/4/03

4. Video Log Information: The video log showed the water level at 215 ft bls. Visibility was lost at approximately 283 ft and not regained. Small pieces of bentonite were identified just before visibility was lost. As the camera was removed from the hole, significant amounts of bentonite were stuck to it.

5. Maintenance Performed: Well maintenance consisted of removing the pipe and pump assembly from the well, cleaning the well, and reinstalling the original pump. Recent sampling indicated significant amounts of bentonite in purge water. The original 2-horse power (hp) pump was removed, and a sand pump was run down to remove sediment and debris. A 5-hp pump was subsequently installed to a depth of 441.7 ft, and the well was purged for 23 minutes, producing approximately 200 gal of water. After approximately 23 minutes, the filter became plugged and pumping ceased. This pump assembly was removed, and the sediment in the hole was allowed to settle for 6 days so that the United States Geological Survey (USGS) could video the down-hole conditions. Because of the high turbidity and low visibility encountered during the video log, the cause of the sediment and bentonite in the well could not be determined. Upon consultation with project personnel, the original sampling pump was reinstalled to its original depth of 443.9 ft bls with 21 sections of 21-ft, stainless-steel discharge pipe. A water level access line consisting of 11 sections of 21-ft and one section of 22-ft, perforated, stainless-steel pipe was also installed.

6. Observations Recorded: The concrete pad, well cap, and lock were in satisfactory condition. The guard posts need to be repainted.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/ W. Jolley

   Crew: G. Jensen, J. Hanson, and T. Brower

WELL ID 793

Well Modification Log

WELL NAME TAN 21 START DATE 1/27/03 END DATE 2/4/03

PROJECT NAME FY 03 TAN WELL MAINTENANCE INSTALLATION TEAM Dynatec

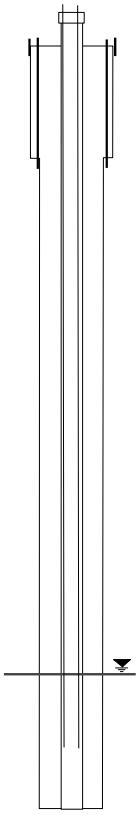
Reason for modification: Clean and redevelop the well.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Casing



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	2ft - 2in
Top of pump	441.7 ft bls
Bottom of pump	443.9 ft bls
Inlet depth	442.7 ft bls
Horse power	2 hp
Flow rate	Not measured
Head	Not Measured
Volts, Amps, Kw	
Phase	Not Modified
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post		X
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless
Diameter	1 in.
Height above ground (stick-up)	1.5 ft.
Depth BLS	441.7 ft

Water Level Access Line Modification

Material	Stainless
Diameter	1.5 in.
Height above ground (stick-up)	1.5 ft.
Depth BLS	251.5 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Comments: Installed pump and discharge tubing, safety cable. No other modifications were made.

Video Logs: yes X no _____ date 2/2/03 *Signature and date:* B. Reynolds 2/4/03

Well jetted /cleaned: yes X no _____ date 1/27/03

Performed by: Dynatec

Figure 2-2. Well modification log for TAN-21.

2.3 TANT-MON-A-013 (TAN-39)

WELL ID: 1165

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: TAN

3. Date Maintenance Performed: Started: 2/10/03 Completed: 2/10/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at TAN-39 consisted of two parts. First, the carbon-steel discharge line was replaced with stainless-steel pipe after the well house was removed. During installation of the new discharge line, the dielectric coupler was relocated to the top of the string, just below the landing plate. Second, the transducer was replaced. When the pump and pipe were removed from the well, Waste Generator Services (WGS) collected residue from the pump area for analysis. WGS provided the sample analysis results directly to the 1-07B project. The pump and pipe were then returned to their original depths, and the well house was reinstalled.

6. Observations Recorded: The surface completion concrete, well house, and electrical assemblies were in very good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: G. Jensen, J. Hanson, and T. Brower

WELL ID 1165

Well Modification Log

WELL NAME TANT-MON-A-013 (TAN-39) START DATE 2/10/03 END DATE 2/10/03

PROJECT NAME FY-03 TAN WELL MAINTENANCE INSTALLATION TEAM Dynatec

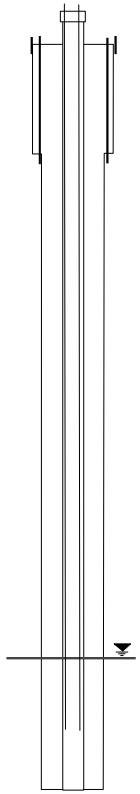
Reason for modification: Replace well pipe and transducer due to corrosion of the carbon steel pipe.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	NA	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless
Diameter	3 in
Height above ground (stick-up)	Not modified
Depth BLS	250 ft

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: WGS attended the site to collect residue samples from the pump area to be tested.
Relocated dielectric coupler to top of discharge line, just below the landing plate.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* B. Reynolds 2/12/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-3. Well modification log for TANT-MON-A-013.

2.4 TANT-MON-A-014 (TAN-40)

WELL ID: 1166

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: TAN

3. Date Maintenance Performed: Started: 2/11/03 Completed: 2/25/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Well maintenance consisted of two parts. First, the carbon-steel discharge line was replaced with stainless-steel pipe after the well house was removed. During installation of the stainless-steel discharge line, the dielectric coupler was relocated to the top of the string, just below the landing plate. Second, the transducer was replaced. While the pump and pipe were removed from the well, WGS collected residue from the elbow located above the landing-plate and pump area for analysis. The pump and pipe were then returned to their original depths, and the well house was reinstalled.

6. Observations Recorded: The surface completion concrete, well house, and electrical assemblies were in very good condition. Carbon-steel casing pulled from the hole had minor corrosion and rust. The pump appeared to be in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, Utah

   Field Lead: B. Reynolds/W. Jolley

   Crew: G. Jensen, J. Hansen, and T. Brower

WELL ID 1166

Well Modification Log

WELL NAME TANT-MON-A-014 (TAN-40) START DATE 2/11/03 END DATE 2/25/03

PROJECT NAME FY 2003 TAN Well Maintenance INSTALLATION TEAM Dynatec

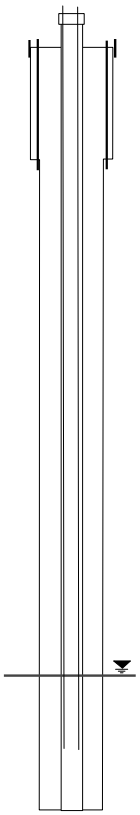
Reason for modification: Replacement of riser pipe.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	
Manufacturer	Not Modified
Model #	
Pump length	
Top of pump	233.5 ft
Bottom of pump	236 ft
Inlet depth	235 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	Not Modified
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless steel
Diameter	3 inch
Height above ground (stick-up)	3 ft
Depth BLS	233.5 ft

Water Level Access Line Modification

Material	
Diameter	Not Applicable
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Comments: Replaced carbon steel downcomer pipe with stainless stee and replaced the transducer.
Relocated dielectric coupler (beneath landing plate)

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* B. Reynolds 2/25/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-4. Well modification log for TANT-MON-A-014.

2.5 TANT-INJ-A-053A (TAN-53A)

WELL ID: 1339

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: TAN

3. Date Maintenance Performed: Started: 1/30/03 Completed: 1/30/03

4. Video Log Information: No video log was performed on this well.

5. Maintenance Performed: Maintenance at this well consisted of pulling 10 sections of 4-in., carbon-steel downcomer pipe. The bottom three sections of pipe were removed. A dielectric flange was installed at 146 ft bls. Four sections of 4-in., stainless-steel downcomer pipe were installed as the bottom section of the string below the flange. Seven of the original carbon-steel pipes were used to complete the string to previous stick-up. The final depth of the string is 231 ft bls.

6. Observations Recorded: The concrete pad, wellhead box, and lock were in satisfactory condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: G. Jensen, J. Hanson, and T. Brower

Well Modification Log

WELL ID 1339

WELL NAME TANT-INJ-A-053A (TAN 53A) START DATE 1/30/03 END DATE 1/30/03

PROJECT NAME FY 03 TAN WELL MAINTENANCE INSTALLATION TEAM Dynatec

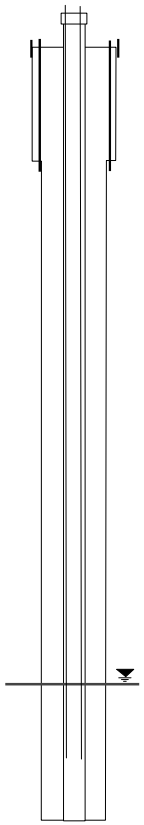
Reason for modification: Replaced 3 carbon steel 4in. Down pipe with stainless steel pipe of the same Diameter. Replaced the dielectric flange.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Applicable
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	NA	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless/Carbon Steel
Diameter	4in.
Height above ground (stick-up)	Not modified
Depth BLS	231 ft

Water Level Access Line Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: 4 inch pipe went down fairly smooth contrary to expectations. There was some sporadic resistance as Pipe was pulled.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* B. Reynolds 2/3/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Figure 2-5. Well modification log for TANT-INJ-A-053A.

2.6 ARA-MON-A-001

WELL ID: 1003

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: Auxiliary Reactor Area (ARA)

3. Date Maintenance Performed: Started: 6/4/03 Completed: 6/17/03

4. Video Log Information: Video logging was performed on 6/10/03.

5. Geophysical Log Information: Gyro-deviation logging was performed on 6/12/03.

6. Maintenance Performed: Maintenance at this well included replacing the original pump; replacing the galvanized discharge (1.25-in.) and access (1-in.) pipe with Schedule-40, stainless-steel pipe; and equipping the pump/motor assembly with 8-gauge, heavy-duty electrical wire and a 3-phase, 30A/600V plug (NEMA #L17-30). Upon completion of maintenance activities, the subcontractor energized the pump to ensure it worked properly and installed a lockable well cap.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: Joe Lambert and Danny Waddoups

WELL ID 1003

Well Modification Log

WELL NAME ARA-MON-A-001 START DATE 6/4/03 END DATE 6/17/03

PROJECT NAME FY 03 Site Wide Well Maintenance INSTALLATION TEAM Dynatec

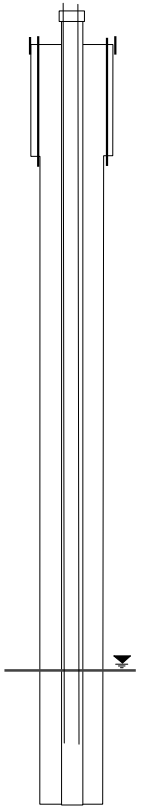
Reason for modification: Needed stainless discharge and access pipe to minimize corrosion. Also replaced the wellhead box with a lockable well cap

Elevation of brass cap? Not changed

Stick up of well casing? Not changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	4 in. Submersible
Manufacturer	Grundfos/Franklin Electric
Model #	10S 30-34
Pump length	4.58 ft
Top of pump	620.5 ft
Bottom of pump	625.1 ft
Inlet depth	624.1 ft
Horse power	3 hp
Flow rate	Approximately 10 gpm
Head	593 ft
Volts, Amps, Kw	230V, 2.2 KW, 9.5 A
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	8 gauge/ 30A 600V

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.25 in
Height above ground (stick-up)	2.5 ft
Depth BLS	620.5ft

Water Level Access Line Modification

Material	Stainless
Diameter	1 in.
Height above ground (stick-up)	2.5
Depth BLS	590.5

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Comments: An alluminum well cap with lock was installed.

Video Logs: yes X no _____ date 6/10/03

Signature and date: Boe Reynolds 11/11/03

Well jetted /cleaned: yes X no _____ date 6/10/03

Performed by: Dynatec

Figure 2-6. Well modification log for ARA-MON-A-001.

2.7 PBF-MON-A-003

WELL ID: 1087

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: Power Burst Facility (PBF)

3. Date Maintenance Performed: Started: 6/4/03 Completed: 6/23/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at this well consisted of two parts. On 6/4/03, the stick-up of the surface casing was reduced 2 ft to lessen the difficulty of access. The wire was also reduced accordingly. An aluminum lockable well cap was installed to complete the first part of maintenance at this well. The second part consisted of replacing the pump, pipe, and wire. A new pump was installed, galvanized discharge and access pipe was replaced with stainless-steel pipe, and new wire equipped with a 30A/600V plug (NEMA #L17-30) was installed. The discharge line is 1.25-in., Schedule-40, stainless steel pipe, and the access line is 1-in., Schedule-40, stainless-steel pipe. The well was jetted and cleaned on 6/23/03 before reinstallation of the pump, pipe, and wire.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: J. Lambert, D. Waddoups, and I. Perkes

WELL ID 1087

Well Modification Log

WELL NAME PBF-MON-A-003 START DATE 6/4/03 END DATE 6/23/03

PROJECT NAME FY 03 Sitewide Well Maintenance INSTALLATION TEAM Dynatec

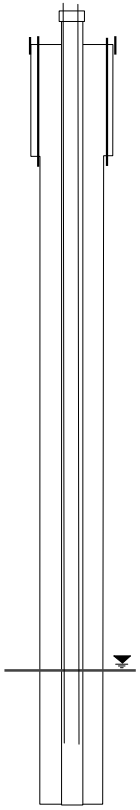
Reason for modification: Shorten surface casing, install well cap and replace pump, pipes, and electrical cable.

Elevation of brass cap? Not changed

Stick up of well casing? Not changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grundfos/Franklin Electric
Model #	10S 30-34
Pump length	4.58 ft
Top of pump	563.5 ft
Bottom of pump	568.1 ft
Inlet depth	567.1 ft
Horse power	3 hp
Flow rate	12 gmp
Head	520.5 ft
Volts, Amps, Kw	230V,2.2KW, 9.5A
Phase	3 phase
Material	Stainless steel
Motor leads/Plugs	8 gauge (30A, 600V)

Protective Casing

Material	Carbon Steel
Diameter	12 in.
Height above ground (stick-up)	3 ft

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.25 in.
Height above ground (stick-up)	2 ft 8 in.
Depth BLS	563.5 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	2 ft 8 in.
Depth BLS	546

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Changed the wire, pump, pipe, and electrical plug. The pump was tested and proven to be in working condition.

Video Logs: yes _____ no X date _____ *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes X no _____ date 6/23/03

Performed by: Dynatec

Figure 2-7. Well modification log for PBF-MON-A-003.

2.8 PBF-MON-A-004

WELL ID: 1094

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: PBF

3. Date Maintenance Performed: Started: 6/4/03 Completed: 6/17/03

4. Video Log Information: Video logging was performed on 6/12/03.

5. Deviation Log: The USGS performed gyro-deviation logging on 6/12/03.

6. Maintenance Performed: Maintenance at this well included replacing the previous pump; replacing the previous galvanized discharge (1.25-in.) and access (1-in.) pipe with stainless-steel, Schedule-40 pipe; and equipping the pump/motor assembly with 8-gauge, heavy-duty electrical wire and a 3-phase, 30A/600V (NEMA #L17-30) plug. Upon completion of the pump, the subcontractor energized the pump to ensure it functioned properly and installed a lockable well cap.

7. Observations Recorded: The surface completion pad needs to be repaired, but the impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/L. Lopez

   Crew: J. Lambert, D. Waddoups, G. Jensen, and L. Rosario

Well Modification Log

WELL ID 1094

WELL NAME PBF-MON-A-004 (PBF-MON-4) START DATE 6/4/03 END DATE 6/17/03

PROJECT NAME FY 03 Sitewide Well Maintenance INSTALLATION TEAM Dynatec

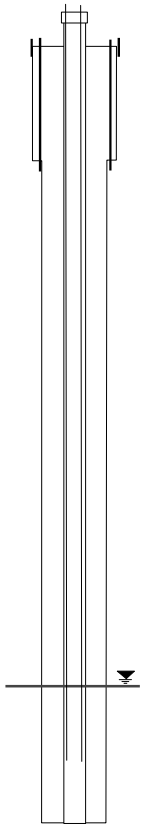
Reason for modification: Replaced the pump, pipe and electrical assembly; jetted and cleaned the borehole; and replaced the well head box with and lockable well cap.

Elevation of brass cap? Not Channged

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grudfos/Franklin Electric
Model #	10S 30-34
Pump length	4.58 ft
Top of pump	526.3 ft
Bottom of pump	530.9 ft
Inlet depth	529.9 ft
Horse power	3 hp
Flow rate	10-12 gpm
Head	497 ft
Volts, Amps, Kw	230V/2.2Kw/9.5A
Phase	3 ph
Material	Stainless Steel
Motor leads/Plugs	8 gauge (30A/600V plug)

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad		X
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.25 in
Height above ground (stick-up)	2.6 ft
Depth BLS	526.3 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	2.6 ft
Depth BLS	477.4 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments:

Video Logs: yes X *no* _____ *date* 6/12/03

Signature and date: Boe Reynolds 8/5/03

Well jetted /cleaned: yes X *no* _____ *date* 6/11/03

Performed by: Dynatec

Figure 2-8. Well modification log for PBF-MON-A-004.

2.9 ICPP-MON-A-230 (TANK FARM 230)

WELL ID: 1442

1. Project Name: Idaho Nuclear Technology and Engineering Center (INTEC) Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/12/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at this well consisted of installing a pump and pipe, including the electrical cable. Work began on 5/6/03 by lowering a 3-hp pump attached to 1.25-in., stainless-steel discharge line. A 1-in., water-access line was installed to 464 ft 11 in. bls. The pump was installed at 473.92 ft bls on 5/7/03 and was wired with 8-gauge, heavy-duty electrical wire and a 30A/600V (NEMA #L17-30) plug. The pump was tested for operational readiness on 5/12/03.

6. Observations Recorded: The surface completion concrete is cracked and sectioned into three portions. Impingement posts are in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1442

Well Modification Log

WELL NAME ICPP-MON-A-230 (Tank Farm 230) START DATE 5/6/03 END DATE 5/12/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

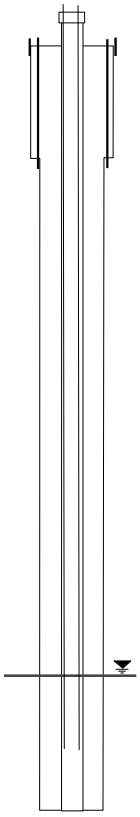
Reason for modification: Installed a pump, piping and electrical cable with plug to enable monitoring of the SRPA. No pump assembly existed previous to this installation.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grundfos
Model #	10S 30-34
Pump length	4.58 ft
Top of pump	473.92 ft
Bottom of pump	478.5 ft
Inlet depth	478 ft
Horse power	3 hp
Flow rate	Not Measured
Head	Not Measured
Volts, Amps, Kw	230V/9.5A/2.2KW
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	8 gauge (30A/600V plug)

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad		X
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.25 in.
Height above ground (stick-up)	2.4 ft
Depth BLS	473.92 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	2.4 ft
Depth BLS	464 ft 11 in.

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Comments:

Video Logs: yes _____ *no* X *date* _____

Signature and date: Boe Reynolds 9/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-9. Well modification log for ICPP-MON-A-230.

2.10 FIRE STATION WELL

WELL ID: 158

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: Central Facilities Area (CFA)

3. Date Maintenance Performed: Started: 12/20/02 Completed: 1/9/03

4. Video Log Information: The USGS performed video logging on 12/20/02.

5. Maintenance Performed: Maintenance at this well included video and deviation logging and removing the pump, discharge pipe, and electrical assembly. A new 15-hp, Grundfos, submersible pump was installed with a 2-in. discharge line and a 30A/600V plug (NEMA #L17-30) motor lead. This pump was installed to obtain water suitable for injection during drilling and coring.

6. Observations Recorded: Surface completion pads were in good condition; however, no impingement posts are present.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: K. Dooley

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

WELL ID 158

WELL NAME Fire Station Well START DATE 12/20/02 END DATE 1/9/03

PROJECT NAME Non-Routine Well Modification INSTALLATION TEAM Dynatec

Reason for modification: Installed pump to enable a source of water suitable for coring and drilling projects.

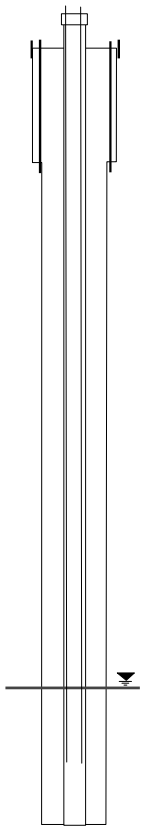
Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface

Use diagram explain modification



Pump Modification

Type	Submersible
Manufacturer	Goulds
Model #	70J15
Pump length	4.4 ft
Top of pump	487.6 ft
Bottom of pump	492 ft
Inlet depth	491 ft
Horse power	15 hp
Flow rate	130 gpm
Head	434 ft
Volts, Amps, Kw	460V/20.8A//20
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	600V, 30A

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	NA	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Carbon Steel
Diameter	2 in.
Height above ground (stick-up)	37 in.
Depth BLS	487.6 ft

Water Level Access Line Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Unable to jet water.

Video Logs: yes X no _____ date 12/20/02 *Signature and date:* Kirk Dooley 1/9/03

Well jetted /cleaned: yes X no _____ date 1/7/03

Performed by: Dynatec

Figure 2-10. Well modification log for Fire Station Well.

2.11 ICPP-1782

WELL ID: 1782

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 6/4/03

4. Video Log Information: Video logging was not performed on this well.

5. Deviation Log Information: The USGS performed deviation logging on 5/6/03.

6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. The well was jetted with 7.5 gal of Aquaclear MGA to remedy bacterial buildup on the pump and pipe. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to their original depths (508 ft).

7. In June, project personnel were directed to raise the pump 32 ft. The pump was raised by removing two sections of 21-ft discharge line and then adding a single 10-ft section.

8. Observations Recorded: Surface completion pads and impingement posts were in good condition.

9. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1782

Well Modification Log

WELL NAME ICPP-1782 START DATE 5/6/03 END DATE 6/4/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

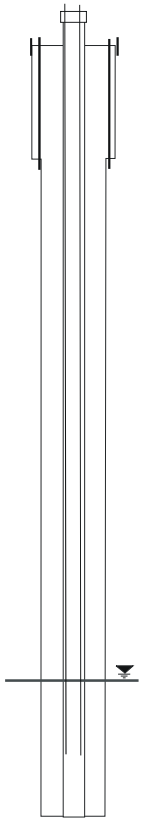
Reason for modification: Bacteria build up on the pump and pipe.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	
Manufacturer	Not Modified
Model #	
Pump length	3.5 ft
Top of pump	476 ft
Bottom of pump	479.5 ft
Inlet depth	478 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	Not Modified
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	476 ft

Water Level Access Line Modification

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	466 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Comments: The pump was pulled on 5/6/03 and 7.5 gallons of Aquaclear MGA was added on 5/28/03 to trea bacteria. Aquaclear MGA was added through a jetting tool as the well was cleaned. After completion of maintenance the pumps were raised 32 ft by removing two 21 ft sections of discharge line and adding one 10 ft section.

Video Logs: yes ____ no X date ____ *Signature and date:* Boe Reynolds 6/4/03

Well jetted /cleaned: yes X no ____ date 6/3/03

Performed by: Dynatec

Figure 2-11. Well modification log for ICPP-1782.

2.12 ICPP-1783

WELL ID: 1783

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 6/4/03

4. Video Log Information: Video logging was not performed on this well.

5. Deviation Log Information: The USGS performed deviation logging on 5/6/03.

6. Maintenance Performed: Maintenance at ICPP-1783 included removal of the pump, discharge/access pipe, and electrical assembly. Once the pump was removed, observations indicated a buildup of bacteria on the pump and pipe. The well was jetted with 7.5 gal of Aquaclear MGA to remedy bacterial buildup on the pump and pipe. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to its original depth (510.8 ft).

7. In June, project personnel were directed to raise the pump 32 ft. The pump was raised by removing two sections of 21-ft discharge line and then adding a single 10-ft section.

8. Observations Recorded: Surface completion pads and impingement posts were in good condition.

9. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1783

Well Modification Log

WELL NAME ICPP-1783 START DATE 5/6/03 END DATE 6/4/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

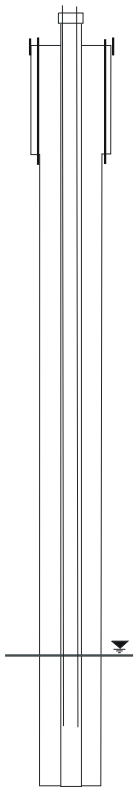
Reason for modification: Bacteria was observed during borehole deveations.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	No Modification
Pump length	
Top of pump	478.8 ft
Bottom of pump	482.3 ft
Inlet depth	481.3 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	No Modification
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	No Modifications
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	No Modification
Height above ground (stick-up)	
Depth BLS	478.8 ft

Water Level Access Line Modification

Material	
Diameter	No Modification
Height above ground (stick-up)	
Depth BLS	468.8 ft

Measure Point

Height above ground (stick-up)	

Well Casing

Material	
Diameter	
Height above ground (stick-up)	No Modifications
Depth BLS	

Comments: Approximately 7.5 gallons of Aquaclear MGA was used to treat bacterial build up on 5/29/03, which was injected through the jetting tool. After completion of maintenance direction came to raise the pump. The pump was raised 32 ft by removing two 21 ft sections of the pump column and adding a 10 ft section.

Video Logs: yes _____ no X date _____ *Signature and date:* Boe Reynolds 6/4/04

Well jetted /cleaned: yes X no _____ date 5/29/03

Performed by: Dynatec

Figure 2-12. Well modification log for ICPP-1783.

2.13 ICPP-1800

WELL ID: 1800

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 6/4/03

4. Video Log Information: Video logging was performed on 5/6/03.

5. Deviation Log Information: The USGS performed deviation logging on 5/6/03.

6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. Once the pump was removed, observations indicated a buildup of bacteria on the pump and pipe. The well was jetted with 7.5 gal of Aquaclear MGA to remedy bacterial buildup on the pump and pipe. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to its original depth (508.1 ft).

7. In June, project personnel were directed to raise the pump 32 ft. The pump was raised by removing two sections of 21-ft discharge line and then adding a single 10-ft section.

8. Observations Recorded: Surface completion pads and impingement posts were in good condition.

9. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

WELL ID 1800

WELL NAME ICPP-1800 START DATE 5/6/03 END DATE 6/4/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

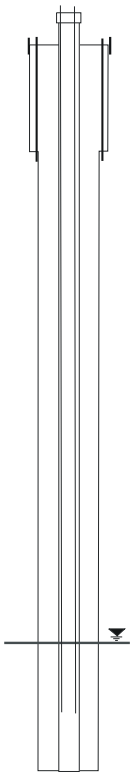
Reason for modification: Bacteria was observed on the pump and pipe during deviation logging.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	476.1 ft
Bottom of pump	479.6 ft
Inlet depth	478.6 ft
Horse power	Not Modified
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	476.1 ft

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	466.1 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump was pulled on 5/6/03 and treated using 10 gallons of Aquaclear MGA on 5/29/03. Cleaning was performed through swabbing and jetting the borehole. After completion of maintenance direction came to raise the pump 32 ft. The pump was raised by removing two 21 ft sections of the pump column and then adding a 10 ft section.

Video Logs: yes X no _____ date 5/6/03

Signature and date: Boe Reynolds 6/04/03

Well jetted /cleaned: yes X no _____ date 5/29/03

Performed by: Dynatec

Figure 2-13. Well modification log for ICPP-1800.

2.14 ICPP-1829

WELL ID: 1829

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 6/4/03

4. Video Log Information: Video logging was not performed on this well.

5. Deviation Log Information: The USGS performed deviation logging on 5/6/03.

6. Maintenance Performed: Maintenance at ICPP-1829 included removal of the pump, discharge/access pipe, and electrical assembly. Once the pump was removed, observations indicated a buildup of bacteria on the pump and pipe. The well was jetted with 7.5 gal of Aquaclear MGA to remedy bacterial buildup on the pump and pipe. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to its original depth (508.3 ft).

   In June, project personnel were directed to raise the pump 32 ft. The pump was raised by removing two sections of 21-ft discharge line and then adding a single 10-ft section.

7. Observations Recorded: Surface completion pads and impingement posts were in good condition.

8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1829

Well Modification Log

WELL NAME ICPP-1829 START DATE 5/6/03 END DATE 6/4/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

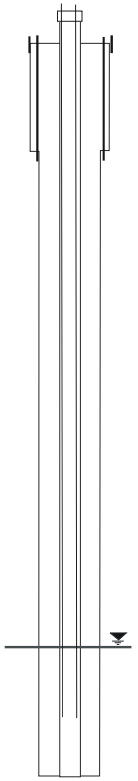
Reason for modification: Bacterial build up was observed on the pump and pipe during deviation logging.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	No Modifications
Pump length	
Top of pump	476.3 ft
Bottom of pump	479.8 ft
Inlet depth	478.8 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	No Modification
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	No Modifications
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	No Modifications
Height above ground (stick-up)	
Depth BLS	476.3 ft

Water Level Access Line Modification

Material	
Diameter	No Modifications
Height above ground (stick-up)	
Depth BLS	466.3 ft

Measure Point

Height above ground (stick-up)	

Well Casing

Material	No Modifications
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Used 7.5 gallons of Aqualcear MGA to treat bacteria in the well on 5/28/03. After completion of maintenance direction came to raise the pump 32 ft. The pump was raised by removing two 21 ft section of pump column and then adding a 10 ft section.

Video Logs: yes _____ no X date _____ *Signature and date:* Boe Reynolds 6/04/03

Well jetted /cleaned: yes X no _____ date 6/3/03

Performed by: Dynatec

Figure 2-14. Well modification log for ICPP-1829.

2.15 ICPP-1831

WELL ID: 1831

1. Project Name: Pump Removal and Deviation Logging for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/5/03 Completed: 6/4/03

4. Video Log Information: Video logging was performed on 5/6/03.

5. Deviation Log Information: The USGS performed deviation logging on 5/6/03.

6. Maintenance Performed: Maintenance at ICPP-1831 included removal of the pump, discharge/access pipe, and electrical assembly. Once the pump was removed, observations indicated a buildup of bacteria on the pump and pipe. The well was jetted with 7.5 gal of Aquaclear MGA to remedy bacterial buildup on the pump and pipe. Once the pH levels were neutral, all well equipment (i.e., pump, pipe, and wire) was reinstalled to its original depth (508 ft).

7. In June, project personnel were directed to raise the pump 32 ft. The pump was raised by removing two sections of 21-ft discharge line and then adding a single 10-ft section.

8. Observations Recorded: Surface completion pads and impingement posts were in good condition.

9. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: L. Lopez

   Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1831

Well Modification Log

WELL NAME ICPP-1831 START DATE 5/5/03 END DATE 6/4/03

PROJECT NAME ICDF Borehole Deviation Logging INSTALLATION TEAM Dynatec

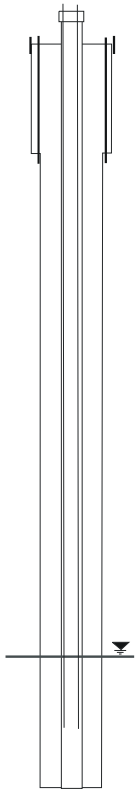
Reason for modification: Bacteria was observed during deviation logging.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	476 ft
Bottom of pump	479.5 ft
Inlet depth	478.5 ft
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	476 ft

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	466 ft

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The well was cleaned with 7.5 gallons of Aquaclear MGA added to the well via the jetting tool. After completion of maintenance to raise the pump 32 ft. The pump was raised by removing two 21 ft sections of the pump column and then adding a 10 ft section.

Video Logs: yes X no _____ date 5/6/03

Signature and date: Boe Reynolds 6/04/03

Well jetted /cleaned: yes X no _____ date 5/28/03

Performed by: Dynatec

Figure 2-15. Well modification log for ICPP-1831.

2.16 CPP-33-4-1 (CPP-33-4)

WELL ID: 764

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/8/03

4. Video Log Information: The video located the water at 97 ft bls, the bailer at 117 ft bls, and the bottom of the hole at approximately 118.2 ft bls. The casing appeared to be in fair condition.

5. Maintenance Performed: Maintenance at CPP-33-4-1 consisted of attempts to remove a down-hole obstruction. Several attempts failed to remove the obstruction, which was determined to be a bailer lost during sampling activities. A video taken of the hole indicated the bailer had been forced by fishing tools to the bottom of the well. Project personnel determined that sampling activities could resume with minimal interference. The bailer remains in the bottom of the well.

6. Observations Recorded: Surface completion pads and impingement posts were in excellent condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

Well Modification Log

WELL ID 764

WELL NAME CPP-33-4-1 (CPP-33-4) START DATE 5/7/03 END DATE 5/8/03

PROJECT NAME FY 03 Well Maintrenance at INTEC INSTALLATION TEAM Dynatec

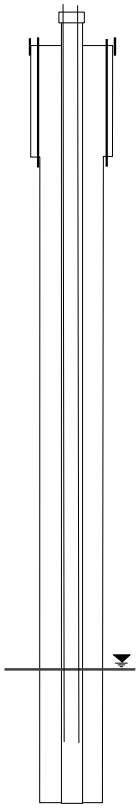
Reason for modification: Remove down-hole obstruction

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Applicable
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Tried unsuccessfully to retrieve a stuck bailer and treble hook lost in attempt to fish the bailer. Succeeded in moving the obstruction to the bottom of the borehole enabling sample collection.

Video Logs: yes X *no* _____ *date* 5/8/03 *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-16. Well modification log for CPP-33-4-1.

2.17 ICPP-SCI-P-249 (CS-CH)

WELL ID: 1445

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/8/03 Completed: 5/8/03

4. Video Log Information: The video located a 2-in.-long, 3/4-in.-diameter pipe used as a weight to help lower bailers lodged at approximately 80 ft bls.

5. Maintenance Performed: Maintenance at ICPP-SCI-249 consisted of attempting to remove a down-hole obstruction. Several attempts were made to remove the obstruction from the hole, which was presumed to be a bailer lost during sampling activities. Three weights similar to the weight described above under video log information were retrieved from the well, but the bailer was lodged at the bottom of the well and was left there. However, project personnel determined that sampling activities could resume with minimal interference.

6. Observations Recorded: Surface completion pads and impingement posts were in excellent condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1445

Well Modification Log

WELL NAME ICPP-SCI-P-249 (CS-CH) START DATE 5/8/03 END DATE 5/8/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

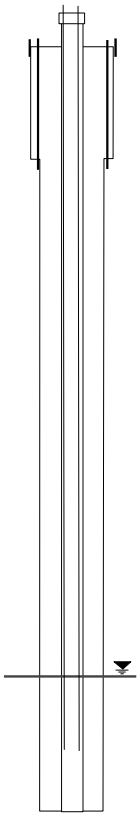
Reason for modification: Remove down-hole obstruction

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Applicable
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Applicable
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Unsuccessfully tried to remove stuck bailer. Removed 3 tube weights opening the well for sampling to take place. The bailer remains near the bottom of the well below the water level.

Video Logs: yes X *no* _____ *date* 5/8/03 *Signature and date:* Boe Reynolds 8/05/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-17. Well modification log for ICPP-SCI-P-249.

2.18 PW-2

WELL ID: 258

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/6/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at PW-2 consisted of replacing the existing concrete surface pad. On 5/6/03, the existing surface pad was removed using crowbars and hammers. A new pad was installed the same day.

6. Observations Recorded: The brass cap should be resurveyed.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: D. Waddoups and Joe Lambert

WELL ID 258

Well Modification Log

WELL NAME PW-2 START DATE 5/6/03 END DATE 5/6/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

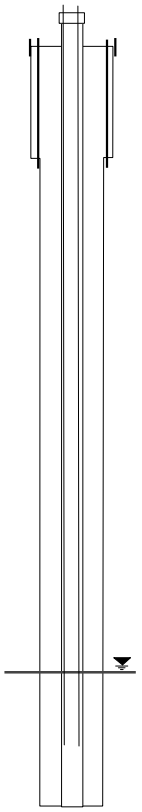
Reason for modification: Deterioration of concrete pad.

Elevation of brass cap? Resurvey

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Removed previous pad and installed a new concrete pad. Brass cap should be resurveyed.

Video Logs: yes _____ no X date _____ *Signature and date:* Boe Reynolds 11/11/03

Well jetted /cleaned: yes _____ no X date _____

Performed by: Dynatec

Figure 2-18. Well modification log for PW-2.

2.19 PW-4

WELL ID: 260

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/6/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at PW-4 consisted of replacing the existing concrete surface pad. On 5/6/03, the existing surface pad was removed using crowbars and hammers. A new pad was installed the same day.

6. Observations Recorded: The brass cap should be resurveyed.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: D. Waddoups and Joe Lambert

WELL ID 260

Well Modification Log

WELL NAME PW-4 START DATE 5/6/03 END DATE 5/6/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

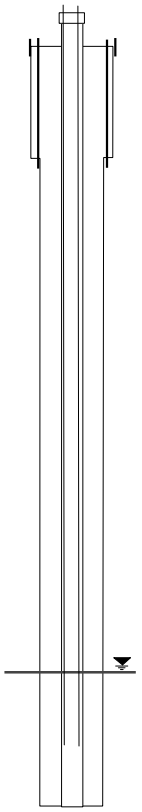
Reason for modification: Deterioration of concrete pad.

Elevation of brass cap? Resurvey

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: Removed previous pad and installed a new concrete pad. Brass cap should be resurveyed.

Video Logs: yes _____ no X date _____ *Signature and date:* Boe Reynolds 11/11/03

Well jetted /cleaned: yes _____ no X date _____

Performed by: Dynatec

Figure 2-19. Well modification log for PW-4.

2.20 ICPP-MON-P-002 (MW-2)

WELL ID: 1058

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/5/03 Completed: 5/5/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at MW-2 consisted of welding the base of the wellhead box to the surface casing.

6. Observations Recorded: Surface completion pads and impingement posts were in excellent condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1058

Well Modification Log

WELL NAME ICPP-MON-P-002 (MW-2) START DATE 5/5/03 END DATE 5/5/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

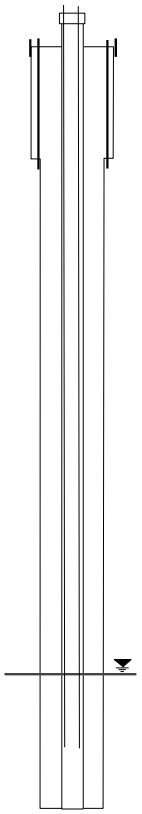
Reason for modification: Secure the wellhead box.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	

Well Description	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: A tack weld was placed where the well head meets casing to secure the well head box.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-20. Well modification log for ICPP-MON-P-002.

2.21 ICPP-MON-P-018 (MW-17)

WELL ID: 1073

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/8/03 Completed: 5/12/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at MW-17 consisted of installing a single-phase, 30A, 125/250V (NEMA # L14-30) electrical plug so perched water can be sampled. A pump test was performed on 5/12/03. MW-17 is completed in a perched zone at approximately 381 ft bls. Once the pump was turned on, operational readiness was good; however, no water existed at this zone (360 to 381 ft bls). The pump is set at approximately 375 ft bls in the 4-in. casing at MW-17.

6. Observations Recorded: Surface completion pads and impingement posts were in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1073

Well Modification Log

WELL NAME ICPP-MON-P-018 (MW-17) START DATE 5/8/03 END DATE 5/12/03

PROJECT NAME FY 03 Sitewide Well Maintenance INSTALLATION TEAM Dynatec

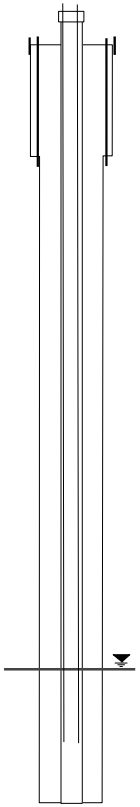
Reason for modification: Install a 30-amp, 125/240-volt electrical plug.

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [ ] yes [X] no If yes was pump returned to original depth? [NA] yes [ ] no

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	None (dry)
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	30 amp, 125/250 volt

Not Modified

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Not Modified

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Not Modified

Water Level Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Not Modified

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Not Modified

Comments: The pump was tested, but it was determined that the well was dry on 5/12/03.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* Boe Reynolds 8/5/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-21. Well modification log for ICPP-MON-P-018.

2.22 ICPP-MON-P-019 (MW-18)

WELL ID: 1187

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/12/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at MW-18 consisted of replacing the existing pump and electrical cable located in the 4-in. well casing. On 5/6/03, 460 ft of 3/4-in. water-level access line, the discharge line (475 ft), and the pump were pulled. The new pump, wired to new 8-gauge electrical cable, was attached to the original stainless-steel discharge line and lowered to a depth of 475 ft bls. On 5/12/03, the pump was tested to ensure operational readiness.

6. Observations Recorded: The surface completion concrete was in very good condition. The pump also appeared to be in good condition.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

   Field Lead: B. Reynolds/W. Jolley

   Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID 1187

Well Modification Log

WELL NAME ICPP-MON-P-019 (MW-18) START DATE 5/06/03 END DATE 5/12/03

PROJECT NAME FY 03 Well Maintenance at INTEC INSTALLATION TEAM Dynatec

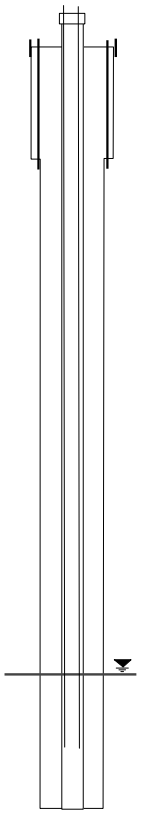
Reason for modification: Replace pump

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? [X] yes [ ] no If yes was pump returned to original depth? [X] yes [ ] no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Pump Modification

Type	Submersible
Manufacturer	Grundfos
Model #	10S20-27
Pump length	41 in.
Top of pump	475 ft.
Bottom of pump	478.5 ft
Inlet depth	Not recoreded
Horse power	2 horse
Flow rate	0.3 gpm
Head	Not measured
Volts, Amps, Kw	230V/6.7A/1.5 KW
Phase	3 phase
Material	Stainless Steel
Motor leads/Plugs	8 gauge (30A/600V plug)

Protective Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	

Well Description

	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	3 ft.
Depth BLS	475 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	.75 in.
Height above ground (stick-up)	2 ft 10 in.
Depth BLS	460 ft.

Measure Point

Height above ground (stick-up)	Not Modified

Well Casing

Material	
Diameter	Not Modified
Height above ground (stick-up)	
Depth BLS	

Comments: Installed pump. No other modifications were made.

Video Logs: yes _____ *no* X *date* _____ *Signature and date:* Boe Reynolds 9/05/03

Well jetted /cleaned: yes _____ *no* X *date* _____

Performed by: Dynatec

Figure 2-22. Well modification log for ICPP-MON-P-019.